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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/657,585	09/08/2000	Wen-Kuan Chen	EM/CHEN/5997	2683

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EXAMINER	
LAROSE, COLIN M	
ART UNIT	**PAPER NUMBER**
2623	

DATE MAILED: 08/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/657,585	CHEN, WEN-KUAN	
	Examiner	Art Unit	
	Colin M. LaRose	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 April 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 5-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 5-13* is/are rejected.

7)☒ Claim(s) *2 and 6-12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Arguments and Amendments

1. Applicant's amendments and arguments filed 18 April 2004, have been entered and made of record.

Response to Amendments and Arguments

2. Applicant's amendment to claim 7 have overcome the previous objection of claim 7 in paragraph 3 of the Non-Final Rejection dated 18 January 2005.

3. Applicant's amendments to claim 1 have overcome the previous 112 rejections of claims 1, 2, and 5-13 in paragraph 5 of the Non-Final Rejection dated 18 January 2005.

4. Regarding Applicant's remarks (see pp. 5-6 of the Response) pertaining to claim 1, Applicant asserts that the claims specify that, "the decoded frame data in the frame buffer AND the real-time decoded frame data from the temporary buffer are output for displaying a high-resolution still picture," and that Schultz's memory 60 does not correspond to the claimed temporary buffer insofar as the data in memory 60 must be decompressed prior to display. However, the claim only requires that the real-time decoded frame data from the temporary buffer is output for display, which is realized by Schultz at display processor 70 and display 72. The claim does not require data to be directly output from the temporary buffer to a display, without intermediate decoding or the like. Furthermore, the claim, as presently constructed, may preclude such an reading because the claim specifies that "the temporary buffer is provided to store the other frame data ... which has not been decoded and which is to be decoded in real time as the still picture is being displayed." This suggests that the temporary buffer holds coded, or

compressed, data that must be decoded for display just as Schultz's data in the memory 60 must be decoded for display.

5. Further regarding Applicant's remarks (see p. 7 of the Response), Applicant asserts that the memory 60 of Schultz differs from the claimed "temporary buffer" because memory 60 stores "compressed pixel data," whereas the temporary buffer of the claimed invention "is used to store real-time decoded frame data for display." However, as noted above, the claimed temporary buffer "is provided to store the other frame data ... which has not been decoded and which is to be decoded in real time as the still picture is being displayed." Therefore, in contrast to Applicant's remarks, it appears that the temporary buffer stores coded data (in accordance with Schultz) and not decoded data (as asserted by Applicant).

6. Further regarding Applicant's remarks (see p. 7 of the Response), Applicant asserts that the display buffer 64 of Schultz differs from the claimed frame buffer because the display buffer 64 stores "decompressed data," whereas the claimed frame buffer stores "decoded frame data." As interpreted by the Examiner, these terms, "decompressed data" and "decoded frame data," are synonymous. They both refer to data of a still image that has been decoded in some fashion.

7. Also regarding Applicant's arguments (see p. 5 of the Response) that the claims distinguish from Schultz because the claims deal with a "still picture" whereas Schultz deals with MPEG video, Examiner would like to respectfully point out that Applicant's entire disclosure is related to the MPEG codec and that MPEG video sequences are comprised of individual still image frames.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

9. Claims 1, 5, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,594,315 by Schultz et al. ("Schultz").

Regarding claim 1, Schultz discloses a high-resolution picture decoding device (figure 1), comprising:

a memory device having a bit-stream buffer (buffer 12), a temporary buffer (video frame memory 60), and a frame buffer (8-line buffer 64), the bit-stream buffer being adapted to store bit-stream data from a storage media (i.e. the buffer 12 is adapted to store incoming MPEG data from any source); and

a decoding means for decoding the bit-stream data in the bit-stream buffer (decompressor 62 decodes the bit-stream data from buffer 12, wherein the bit-stream data has been decompressed and recompressed prior to application to the decompressor 62) and storing decoded frame data in the frame buffer (64), such that, when a still picture is to be displayed, the frame buffer stores a part of the frame data that has been decoded from a part of the bit-stream data and corresponds to the still picture (i.e. the 8-line buffer 64 stores 8 lines of the still picture), and the temporary buffer is provided to store the other frame data from the other part of the bit-stream data which has not been decoded and which is to be decoded in real time as the still picture is being displayed (i.e. the video frame memory 60 stores other frame data that has yet to be decoded), and the decoded frame data in the frame buffer and real-time decoded frame data from the temporary buffer are output for displaying a high-resolution still picture (i.e. the data in both the video frame memory 60 and the 8-line buffer 64 are output for real-time display 72),

wherein the frame data from the bit-stream buffer is represented by multiple macroblock lines after being decoded by the decoding means (i.e. the frame data is an MPEG frame that consists of a plurality of macroblocks), the frame buffer only stores a portion of the macroblock lines that has been decoded (i.e. the 8-line buffer 64 stores only 8 lines of macroblock data) and corresponds to the frame data of the still picture, and the temporary buffer stores at least one other macroblock line for decoding in real time as the still picture is being displayed (i.e. the video frame memory 60 stores at least one macroblock line other than the macroblock lines stored in the 8-line buffer 64).

Regarding claim 5, Schultz discloses the frame buffer stores even numbered macroblock lines that have been decoded and correspond to the frame data of the picture (i.e. 8-line buffer 64 stores some even numbered macroblocks lines after decoding by the decompressor 62).

Regarding claim 13, Schultz discloses a multiplexer (68) which selects the decoded frame data in the frame buffer or the real-time decoded framed data from the temporary buffer to output.

Allowable Subject Matter

10. Claims 2 and 6-12 would be allowable if rewritten to overcome the rejection under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Regarding claim 2, Schultz's temporary buffer 60 has more memory space than his frame buffer 64.

Regarding claim 6, Schultz's macroblock lines in the temporary buffer 60 are not half the height of those in the frame buffer 64.

Regarding claim 7, Schultz does not disclose decoding even and odd fields of macroblock lines, as claimed, since the data stored in video frame memory to be decoded is in de-interleaved form (see column 6, lines 38-39).

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Colin M. LaRose whose telephone number is (571) 272-7423. If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Jingge Wu, can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600 Customer Service Office whose telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CML
Group Art Unit 2623
24 August 2005

VIKKRAM BALI
PRIMARY EXAMINER